

XIII. Radioactive Materials

Section XIII of the 2001-2002 season plans lists the radioactive materials to be used and provides information regarding their form, nuclide, site, and specific use.

<u>PROJECT</u>	<u>NUCLIDE</u>	<u>FORM</u>	<u>SITE</u>	<u>USE</u>
BG-232-O	³ H	³ H – Water	RV/ LAURENCE M. GOULD & R/V NATHANIEL B. PALMER	Foraging Ecology of Crabeater Seals
BG-235	³ H ¹⁴ C	³ H – Thymidine ¹⁴ C – Sodium Bicarbonate ³ H – Leucine	RV/ LAURENCE M. GOULD & R/V NATHANIEL B. PALMER	Winter Distribution and Activities of Sea Ice Microbial Communities in the Western Antarctic Peninsula Region
BG-246-O	¹⁴ C	¹⁴ C – Sodium Bicarbonate	RV/ LAURENCE M. GOULD & R/V NATHANIEL B. PALMER	Winter Ecology of Larval Krill: Quantifying Their Interaction With The Pack Ice Habitat
BM-042-P	¹⁴ C ³ H	¹⁴ C - Bicarbonate ³ H - Thymidine	McMurdo Station/Dry Valleys	McMurdo Dry Valleys: A Cold Desert Ecosystem
BM-042-W	¹⁴ C -	¹⁴ C - Sodium Bicarbonate	McMurdo Station	McMurdo Dry Valleys: A Cold Desert Ecosystem
BO-005-O	¹⁴ C ³ H	¹⁴ C – Sodium Bicarbonate ³ H – Leucine	McMurdo Station	Antifreeze Proteins in Antarctic Fishes

<u>PROJECT</u>	<u>NUCLIDE</u>	<u>FORM</u>	<u>SITE</u>	<u>USE</u>
BO-047-O	¹⁴ C	¹⁴ C – Sodium Bicarbonate	US COAST GUARD POLAR STAR	Interannual Variability in the Antarctic Ross Sea: Nutrients and Seasonal Production
BP-016-O	¹⁴ C	¹⁴ C - Sodium bicarbonate	Palmer Station; R/V LAURENCE M. GOULD	Palmer Station/LM GOULD: LTER on the Antarctic Marine Ecosystem: An Ice Dominated Environment - Phytoplankton Ecology Component
BP-045-O	³ H	³ H – Thymidine ³ H – Leucine	Palmer Station R/V NATHANIEL B. PALMER	Transport and Fate of Persistent Organic Pollutants (POP) in Antarctic Coastal Seas
BP-046-O	³ H ¹⁴ C	³ H - Leucine ¹⁴ C - Bicarbonate ³ H - Glucose ¹⁴ C - Acetate ³ H – Thymidine ³ H – Amino acid mixture	R/V LAURENCE M. GOULD	LTER: Microbiology and carbon flux
BP-134-O	³⁵ S ¹⁴ C	³⁵ S – Amino Acid Mixture ¹⁴ C – Protein	McMurdo Station	Evolutionary Loss of Heat Shock Response In Antarctic Fishes

<u>PROJECT</u>	<u>NUCLIDE</u>	<u>FORM</u>	<u>SITE</u>	<u>USE</u>
OO-257-O	⁶³ Ni	⁶³ Ni - Foil or Plated source	South Pole Station	South Pole Monitoring for Climatic Change: U.S. Department of Commerce; National Oceanic and Atmospheric Administration, Climate Monitoring and Diagnostics Laboratory (Source is inside an electron capture detector of a gas chromatograph)